

ABSTRACT

When color image data (C_1 , M_1 , Y_1) representing a color image is read in S11, the minimum value from among the color values C_1 , M_1 , and Y_1 is selected in S12. Next, in 5 S13, black data K_1 is generated using a black data generating table that corresponds to the color of the minimum value $k = \min(C_1, M_1, Y_1)$ determined in S11. The black data generating tables have different black data conversion characteristics from one another and are 10 associated with the three colors of cyan, magenta, and yellow, respectively. In S14, the black data K_1 obtained in S13 is subtracted from each of the color data C_1 , M_1 , and Y_1 to obtain corrected color data C_2 , M_2 , and Y_2 . In S15, the data C_2 , M_2 , and Y_2 are outputted along with the black data 15 K_1 as four-color data (C_2 , M_2 , Y_2 , K_1). Accordingly, it is possible to form images of high quality, even when the main color of the image changes, by preventing light- or weak-color images from appearing messy due to the black color being depicted too strongly and by preventing dark- or 20 strong-color images from lacking sufficient contrast due to the black color being depicted too weakly.